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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,942	02/13/2002	Arno Jambor	10537/197	9842

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KENYON & KENYON
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER	
POE, MICHAEL I	
ART UNIT	**PAPER NUMBER**
1732	

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/075,942	JAMBOR ET AL.	
	Examiner	Art Unit	
	Michael I Poe	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) *6 and 7* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20020213*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, claims 1-5, in the paper filed on March 19, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 6 and 7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the paper filed on March 19, 2004.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It was not executed in accordance with either 37 CFR 1.66 or 1.68.

Note that the declaration has not been executed by any of the applicants.

Specification

4. The disclosure is objected to because of the following informalities: (1) "(implementing)" should be "implementing" on line 2 of page 2; (2) "(procedures)" should be "procedures" on line 5 of page 2; (3) "work piece" should be "workpiece" on line 36 of page 2; and (4) "aftertreatment" should be "after-treatment" on line 37 of page 2.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Publication No. 59-24636 A (Hieda et al.) in view of U.S. Patent No. 5,652,039 (Tremain et al.).

Claims 1-4

Hieda et al. teach a working method for forming a cushioning and heat insulating material including providing a bar heater 1 having a U-like configuration in cross-section at its bottom part and a V-like configuration in cross-section at its upper part connecting to the bottom part; heat-pressing the bar heater 1 into a sheet-like thermoplastic foamed resin material 2 (a substantially plate-shaped, thermoplastic workpiece) from its surface toward its back so far no to pierce therethrough in order to form a nearly V-like groove in the sheet-like foamed resin material 2 whereby the bar heater 1 penetrates into the sheet-like foamed resin material 2 and heats the walls of the groove to a molten state (heating a bending region of the workpiece at least up to plasticization; inserting a bending element into the workpiece up to an apex of a desired bend; the step of heating the bending element); and bending the sheet-like foamed resin material 2 at the center line of the groove (bending the bend region) so as to fuse both the walls of the groove, still in the molten state, to each other in order to form the cushioning and heat insulating material (moving the bending element out of the workpiece after the bending step; sealing a gap that was created in the workpiece by the bending element in the inserting step) (English abstract and partial oral translation). Note that the claims, as currently written, do not specifically require preheating of the bending region prior to inserting of the bending element; therefore, the claims are readable on heating of the bending region concurrently with the insertion of the bending element.

Based upon the partial oral translation obtained by the examiner, Hieda et al. apparently do not teach bending the bending region about the bar heater acting on the sheet-like foamed resin material

about a front end, relative to the insertion direction, of the inserted bar heater and that the workpiece includes a sandwich panel. However, Tremain et al. teach a method of angularly forming a sandwich panel including providing a sandwich panel including an inner layer 2 comprising a relative thick and relatively low density PVC sealed foam and outer layers 3 comprising a relatively thin and relatively more dense PVC plastic skins (a substantially plate-shaped, thermoplastic workpiece; the workpiece includes a sandwich panel); forming a defined hinge or fold along the contact line of a forming tool 5 by pressing the edge 9 of the forming tool 5 into an outer layer 3 of the sandwich panel to crush the inner layer 2 while the outer layer 3 in contact with the forming tool 5 buckles into the crushed inner layer 2 (inserting a bending element into the workpiece up to an apex of a desired bend); and bending the sandwich panel at the hinge or fold with or without the assistance of the forming tool 5 (bending the bend region about the bending element acting on the workpiece about a front end, relative to an insertion direction, of the inserted bending element) (column 2, lines 17-35; column 5, lines 40-67; Figure 2). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made and one of ordinary skill would have been motivated to bend a sandwich panel about the bending element in the process of Hieda et al. as taught by Tremain et al. to provide more accurate and reliable bending and to provide a product having extended utility (e.g., a product capable of being used in a wide variety of modular free standing panel systems as taught in column 6, lines 31-49 of Tremain et al.).

Claim 5

The discussion of Hieda et al. and Tremain et al. as applied to claim 1 above applies herein.

Based upon the partial oral translation obtained by the examiner, Hieda et al. in view of Tremain et al. do not apparently teach repeating the heating, inserting and bending steps a plurality of times at various locations along the workpiece to form a curved or arched shaped workpiece (e.g., to generate a polyline). However, in this regard, the examiner takes official notice that it was generally well known in the art at the time the invention was made to form curved or arched molded articles from a workpiece by bending the workpiece a plurality of times at various locations along the workpiece to form the workpiece into an arched or curved shape (e.g., to generate a polyline) (see, for example, prior art cited on interest in *Conclusion* section below). It would have been prima facie obvious to one of ordinary skill in the art at

the time the invention was made and one of ordinary skill would have been motivated to form a curved or arched molded article from a workpiece by bending the workpiece a plurality of times at various locations along the workpiece to form the workpiece into an arched or curved shape (e.g., to generate a polyline) in the process of Hieda et al. in view of Tremain et al. as was well known in the art to provide an article having a complex curvature thereby providing an article with greater aesthetic appeal.

NOTE: The examiner has requested a full written translation of Hieda et al. so that it can be better understood exactly what Hieda et al. teaches and fails to teach; however, this full written translation was not available at the time of the writing of this Office action. A copy of the full written translation of Hieda et al. will be provided to the applicant with the next Office action. If the applicant wishes to obtain a copy of the full written translation before the next Office action, the applicant should contact the examiner at the number provided below.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 4,007,538 (Petrie) and U.S. Patent No. 4,777,005 (Miller) have been cited of interest to show examples of the fact that it is generally well known in the art at the time the invention was made to form curved or arched molded articles from a workpiece by bending the workpiece a plurality of times at various locations along the workpiece to form the workpiece into an arched or curved shape (e.g., to generate a polyline). U.S. Patent No. 3,615,149 (Malone et al.), U.S. Patent No. 3,757,559 (Welsh), U.S. Patent No. 4,078,959 (Palfey et al.), U.S. Patent No. 4,671,985 (Rodrigues et al.), U.S. Patent No. 4,865,807 (Petershofer et al.), U.S. Patent No. 5,169,651 (Heiber et al.), U.S. Patent No. 5,354,522 (Baartman), U.S. Patent No. 5,354,533 (Antoine), U.S. Patent No. 5,326,249 (Weissfloch), U.S. Patent No. 5,549,862 (Vail), Japanese Patent Publication No. 53-44277 A and German Patent Publication No. DE 4024504 A1 (Veutgen) have been cited of interest to show the state of the art at the time the invention was made. Based upon a partial oral translation of JP 53-44277 A, the reference teaches that the

pressing blade 6 forms a fold line 7 by hot pressing the blade into sheet 5 and does not teach any bending about the pressing blade 6.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael I Poe whose telephone number is (571) 272-1207. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Poe/mip

MICHAEL COLAIANNI
PRIMARY EXAMINER